

## REMARKS

Claims 1, 2 and 4-19 are pending in this application.

### **Claim Rejections – 35 USC 103(a)**

1. Claims 1, 2 and 4-19 are rejected under 35 USC 103(a) as being unpatentable over Clark et al. (US 6,734,299) in view of Tittmann et al. (US 5,705,605).

1a. Clark et al. (US 6,734,299) discloses a water-soluble or water-dispersible material for deposition onto a substrate during a treatment process, wherein the material comprises:

- (1i) a deposition enhancing part having a polymeric backbone; and
- (1ii) a benefit agent group attached to the deposition enhancing part by a hydrolytically stable bond;

such that the material undergoes, during the treatment process, a chemical change which does not involve the hydrolytically stable bond and by which change the affinity of the material onto the substrate is increased (see column 3, lines 27 to 37). The polymeric backbone is chosen to have an affinity for the substrate onto which it is to be deposited. It is especially preferred that the polymeric backbone is of a similar chemical composition to the substrate onto which it is to be deposited (if the fabric is cellulosic in nature, e.g. cotton, the polymeric backbone is for example cellulose, a cellulose derivative or another  $\beta$ -1,4-linked polysaccharide having an affinity for cellulose, such as mannan and glucomannan).

The key feature of Clark et al. is the combination of a polymeric backbone and a benefit agent, which is “bonded” (covalently bonded, see column 5, lines 6 to 10) to the polymeric backbone. According to the benefit agent types that are mentioned in column 8 line 17 to column 11 line 25:

- (a) fabric softening and/or conditioning agents
- (b) lubricants for inhibition of fibre damage, and/or for colour care and/or for crease reduction, and/or for ease of ironing
- (c) UV absorbers such as fluorscers and photofading inhibitors
- (d) fungicides and/or insect repellents; and

(e) perfumes.

The only disclosure wherein the word “dye fixative” is presented is claim 1 in column 24. The exact wording is:

“a deposition enhancing part having a beta 1,4 linked polysaccharide backbone composed of saccharide rings having a carboxylic acid esterified therewith; and a benefit agent attached to the deposition enhancing part by a covalently hydrolytically stable bond; said benefit agents being selected from .....dye fixatives ....”.

Said wording seems to be more random than selected because there is no other teaching or suggestion as to the meaning of “dye fixative”.

In summary of Clark et al., there is disclosed a treatment process, wherein the material comprises:

- (i) a deposition enhancing part having a polymeric backbone; and
- (ii) a benefit agent group attached to the deposition enhancing part by a hydrolytically stable bond; said benefit agent group may be a dye fixative.

The deposition enhancing part having a polymeric backbone is of a similar chemical composition to the substrate onto which it is to be deposited. As a consequence, if the substrate is cotton the polymeric backbone is e.g. cellulose, a cellulose derivative or another  $\beta$ -1,4-linked polysaccharide having an affinity for cellulose and the dye fixative is “bonded” to said cellulose.

In contradiction thereto, the instantly claimed subject matter does not use a polymeric backbone which differs from substrate to substrate and which contains the dye fixative bonded, e.g. via esterification. In the instant claims, a dye fixative is used which comprises a basic condensation product of an amine of formula (1).

**1b.** Tittmann et al. (US 5,705,605) discloses a process for the preparation of a dyeing auxiliary providing the preparation of basic polycondensates of an amine of formula (1). The polycondensates or salts thereof of Tittmann et al. are suitable **after-treatment agents for enhancing the wet fastness properties of dyed or printed hydroxy-group containing or**

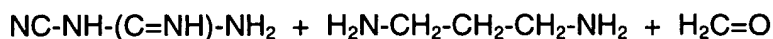
**amino group containing textile fiber material.** Tittmann et al. is completely silent with respect to the instantly claimed method.

**1c.** The combination of the cited references Clark et al. in view of Tittmann et al. :

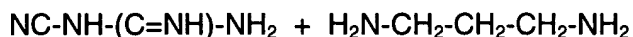
The mere fact that references can be combined does not render the resultant combination obvious. References which merely indicate that isolated elements in the claims are known is not a sufficient basis for concluding that the combination of claimed elements would have been obvious. However, in the present case the combination of the references clearly teaches away from what the Examiner contends is obvious from the references. It is correct that Clark et al. teaches detergent compositions comprising the elements (1i) and (1ii) given above. Even if the benefit agent (1ii) in Clark et al is the polycondensate of an amine of formula (1) of Tittmann et al., there is no deposition enhancing part having a polymeric backbone (1i) of Clark et al. According to the disclosure of Clark et al., said deposition enhancing part having a polymeric backbone differs from substrate to substrate; and thus, if the substrate is cotton as disclosed in Tittmann et al. the deposition enhancing part having a polymeric backbone is a cellulose derivative or another  $\beta$ -1,4-linked polysaccharide having an affinity for cellulose. Based on the combination of these references, the instant invention would not have been obvious to one of ordinary skill in the art. The Examiner is directed to the unexpectedly outstanding success of the instant invention as demonstrated by Instant Examples 16 and 17.

**2.** Claims 1, 2, 4-9, 11, 12 and 14-18 are rejected under 35 USC 103(a) as being unpatentable over Panandiker et al. (US 6,156,722) in view of Tittmann et al. (US 5,705,605).

**2a.** Panandiker et al. (US 6,156,722) discloses heavy duty laundry detergent compositions which contain certain types of dye fixative materials to impart appearance benefits to fabrics and textiles laundered in washing solutions formed from such compositions. Panandiker et al. discloses certain types of dye fixative materials (see column 1, lines 9-13), or selected dye fixatives (see column 4, line 44 to column 5, line 57). Panandiker et al. discloses at the point of closest approach the dye fixative given in the reference is a polymer prepared from the following monomers (see column 4, line 54 to column 5, line 57 of the US 6,156,722):



The dye fixative of the instant invention at the point of closest approach is prepared according to the following scheme:



According to the instant invention there is no formaldehyde used for the preparation of the instant dye fixative.

In addition there is no motivation in this reference to modify the dye fixatives disclosed. Panandiker et al. discloses seven known dye fixatives as preferred compounds. There is no teaching in this reference to select one of the preferred seven compounds and to modify the process of its production.

In the absence of a clear teaching to select one of the preferred dye fixatives of Panandiker et al. and in the absence of any motivation to modify the process of production a person skilled in the art would clearly not be guided to the dye fixative of the instant invention.

**2b.** As to Tittmann et al. (US 5,705,605), please see above.

**2c.** As to the combination of the references Panandiker et al. (US 6,156,722) in view of Tittmann et al. (US 5,705,605):

At the time Panandiker et al. was invented, the Tittmann et al. polycondensates were known. Thus, a person of ordinary skill in the art would wonder why these dye fixatives were omitted. It is more a theoretical approach to modify the process of the production of a well-known dye fixative (Panandiker et al.) and to exchange the specific dye fixatives of Panandiker et al. by those disclosed by Tittmann et al. without any teaching or suggestion in Panandiker that such dye fixatives may be used. References which merely indicate that isolated elements in the claims are known is not a sufficient basis for concluding that the combination of claimed elements would have been obvious. To properly combine two references to reach a conclusion of obviousness, there must be some teaching, suggestion or inference in either or both of the references, or knowledge generally available to one of ordinary skill in the art, which would have led one to combine the relevant teachings of the two references.

3. Claims 1, 2, 4-8, 11, 13 and 14 are rejected under 35 USC 103(a) as being unpatentable over Kuzmenka et al. (US 6,627,591) in view of Tittmann et al. (US 5,705,605).

3a. Kuzmenka et al. (US 6,627,591) discloses a dye fixing composition which comprises:

- (3i) a dye fixing agent
- (3ii) an N-heterocyclic polymer, and
- (3iii) a nonionic surfactant

for providing improved color appearance of the laundered fabrics. All three of these key elements of the Kuzmenka et al. invention as given above as (3i), (3ii) and (3iii) are necessary to obtain the required result. It is the Examiner's position that the combination of Kuzmenka et al. together with Tittmann et al. (see above) renders the instant invention obvious. However, the teaching of Kuzmenka et al. in view of Tittmann et al. results in a composition which comprises:

- Tittmann et al.'s polycondensate as the dye fixing agent
- Kuzmenka et al.'s N-heterocyclic polymer, and
- Kuzmenka et al.'s nonionic surfactant.

A nonionic surfactant may be used in the instant invention, however there is no obligatory N-heterocyclic polymer in the instant invention but a specific amount of a carrier, such as water soluble inorganic or organic salts, alkali metal silicates, carbonates, bicarbonates and borates, alkali metal phosphates and alkali metal sulfates (see page 6, lines 13 to 6 from the bottom and the following paragraphs until page 8, last line). Thus the teaching of Kuzmenka et al. in view of Tittmann et al. does not result in the instant invention. Based on the combination of these references, the instant invention would not have been obvious to one of ordinary skill in the art. The Examiner is directed to the unexpectedly outstanding success of the instant invention as demonstrated by Instant Examples 16 and 17.

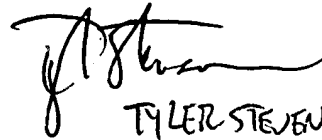
Without knowledge of the instant invention said invention is unobvious for a person skilled in the art because without teaching and motivation in the cited prior art or any other useful hints and without substantial testing no person skilled in the art could expect the advantageous properties of the instant invention.

The present 35 USC 103(a) rejections are addressed and are overcome.

The Examiner is kindly requested to reconsider and to withdraw the present rejections.

Applicants submit that the present claims are in condition for allowance and respectfully request that they be found allowable.

Respectfully submitted,



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